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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,339	02/26/2004	Curtis Goad	GOAC 8768US	3971
1688	7590	06/20/2005	EXAMINER	
POLSTER, LIEDER, WOODRUFF & LUCCHESI 12412 POWERS COURT DRIVE SUITE 200 ST. LOUIS, MO 63131-3615			ROGERS, DAVID A	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/787,339

Applicant(s)

GOAD ET AL.

Examiner

David A. Rogers

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-22 is/are allowed.
- 6) ☒ Claim(s) 1,6-8 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 2-5 and 9-12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040503</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Non Final Rejection</u> . |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - a. Amend page 8, line 19 to read --display 11--.
 - b. Amend page 9, line 22 and page 10, line 1 to read --ball 37-- vice --ball 38--.
 - c. Amend page 12, line 10 to read --directional amplifier 134--.
 - d. Amend page 12, line 15 to read --display 111--.

Appropriate correction is required.

Claim Objections

2. Claims 10-12 are objected to because of the following informality. These claims refer to the use of a directional amplifier, which is recited in claim 9. Claims 10-12 should, therefore, be rewritten to depend on claim 9. This would be the same way the applicant presented claims 3-5. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,184,083 to Groover in view of United States Patent 4,950,370 to Darilek *et al.* and United States Patent 2,832,046 and United States Patent 5,202,638 to Kolz.

Groover teaches a probe (reference item 32) connected to a power supply (reference item 22) for detecting leaks in lined liquid retainers. The probe further emits electrical current to a liquid via an directional injection electrode (reference item 18). The probe also senses electric current using sensing electrodes (reference item 20).

Groover also states the monitoring current density is known in the art of detecting leaks. See column 7, lines 48-62. It is also known that, when applying electrical current to the retained the region of leakage will exhibit higher current density. See Darilek *et al.* Replacing the sensors of Groover with sensors responsive to current density, such as a torroids, to measure current density would have been obvious. Torroids are known to have outputs whose magnitude is a function of current density. See the teachings of Rezek and Kolz.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Groover with the teachings of Darilek, Rezek, and Kolz to use a probe to measure current density in detecting leaks.

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5. Claims 6, 7, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groover in view of Darlilek, Rezek, and Kolz as applied to claims 1 and 8 above, and further in view of United States Patent 6,662,632 to Parker *et al.*

Groover teaches a leak detector connected to a source of power. This power source would inherently be AC or DC powered.

Parker *et al.* teaches using electrodes to detect leaks in lined vessels. Parker *et al.* teaches that the source of power can be AC or DC. See column 4, lines 40-53.

The use of AC or DC would have been obvious as a) AC power does not need batteries that have to be replaced and b) batteries offer portability of the probe.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Groover in view of Darlilek, Rezek, and Kolz with the teachings of Parker *et al.* to provide a leak detector powered by AC or DC current.

Allowable Subject Matter

6. Claims 16-22 are allowed.


7. Claims 2-5 and 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (571) 272-2205. The examiner can normally be reached on Monday - Friday (0730 - 1600).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


dar
26 May 2005


HEZRON WILLIAMS
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